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Response dated November 7, 2006
Response to Office Action mailed 06/20/2006

Application No. 10/614,313

REMARKS

The Office Action mailed June 20, 2006 has been reviewed and the comments therein were carefully considered. Claims 1-24 are currently pending. Claims 1-24 stand rejected. No new matter has been introduced into the application. As explained in more detail below, Applicant submits that all claims are in condition for allowance and respectfully requests withdrawal of the rejections.

Applicant maintains the previous arguments, including those with respect to a lack of motivation to combine the cited references. However, in the interest of furthering the prosecution of the case, Applicant has made amendments which clarify further differences between the presented claims and the cited art. The arguments of record are therefore not surrendered but are not presented in this paper.

Amendments to the Claims

Claims 1 and 18 have been amended to add the language "by replacing a complete packet" to clarify that the claims are directed to packet rather than bit-by-bit replacement. Claims 11, 12, and 24 have been amended so that they more clearly claim the subject matter and to correct inadvertent typographical errors. No new matter has been added.

Independent Claim 1 and Dependent Claims 2-17

Claim 1 is rejected under 35 USC §103(a) as being unpatentable over Wager, in view of Campanella.

Applicant respectfully submits that the Office Action has not addressed Applicant's argument in its entirety but rather has taken a portion of the argument and stated that that portion is disclosed by Wager in view of Campanella. More specifically, Applicant argued in the previous response that "neither Wager nor Campanella discloses broadcasting bursts of data packets from multiple base transceiver stations to a terminal." (Applicant's March 21, 2006 Response, page 8). In responding to this argument, the Office Action stated that "Wager still reads on a system involving multiple base stations (Col 2, lines 35-38) and a wireless terminal (mobile station-Col 2, line 35)." (Office Action mailed June 20, 2006, page 3). The Office

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Action fails to address Applicant's argument that neither reference discloses the feature of broadcasting bursts of data packets from multiple base transceiver stations to a wireless terminal. The Office Action then states that "the claim language of claim 1 does not claim to broadcast bursts of data packets from base transceiver stations to a wireless terminal." (*Id.* at 4). However, independent claim 1 clearly recites broadcasting bursts of data packets from base transceiver stations to a wireless terminal. Therefore, for at least this reason, Applicant submits that independent claim 1 and dependent claims 2-17 are in condition for allowance.

Furthermore, the Office Action states that "the features upon which applicant relies (i.e., to broadcast bursts of data packets from base transceiver stations to a wireless terminal, in a downlink system consisting of one receiver and several transmitters) are not recited in the rejected claim(s)." (Office Action mailed June 20, 2006, page 4). However, the language of claim 1 reads "receiving at a wireless terminal a first burst of data packets from the first base station... receiving at the wireless terminal a second burst of data packets from the second base station." This portion of claim 1 clearly recites broadcasts of "bursts of data packets from base transceiver stations to a wireless terminal, in a downlink system consisting of one receiver and several transmitters." It is unclear which portion of this language the Office Action alleges is not present in independent claim 1.

Additionally, Wager discloses use of a packet combining technique, requiring receipt of at least two copies of a data packet and the combination of at least two of the received versions of the data blocks to create a substantially error corrected version of the data block. Wager discloses a bit-level analysis to correct errors in the packet. The Office Action states "that the features upon which applicant relies ... are not recited in the rejected claim(s)." Claim 1 of the present application has been amended to clarify that it relates to replacement of complete packets rather than bit-by-bit correction of packets received with errors and does not require two copies of the data to correct errors. Therefore, combining forward error correction with the invention disclosed in Wager would not result in the invention claimed in claim 1.

Applicant respectfully requests withdrawal of the rejection for at least these reasons. Dependent claims 2-17, which ultimately depend from independent claim 1, are allowable for at least the same reasons as independent claim 1.

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Independent Claim 18 and Dependent Claim 19

Claim 18 is rejected under 35 USC §103(a) as being unpatentable over Willenegger in view of Schuster.

Applicant submits that Willenegger and Schuster, alone or in combination do not render claim 18 obvious because the references do not disclose, teach or suggest at least the feature of independent claim 18 relating to "receiving ... burst[s] of data packets from the [first and second] base station[s]." Nothing in Willenegger or Schuster discloses base stations broadcasting bursts of data packets to a wireless terminal. Willenegger states that the invention therein relates to "point-to-multipoint communication services that attempt to deliver certain content to a large number of user terminals" and that the design considerations are therefore "different from those of point-to-point communications services (such as voice and packet data), which are commonly provided by cellular communication systems." Schuster does not even contemplate wireless technology but rather is related to the communication of substantially real time media signals over the Internet.

Furthermore, claim 18 of the present application has been amended to clarify that it relates to replacement of complete packets rather than bit-by-bit correction of packets received with errors and does not require two copies of the data to correct errors. Applicant submits that neither Schuster nor Willenegger discloses the replacement of complete packets broadcast from multiple transceivers to a wireless terminal. Applicant respectfully requests withdrawal of the rejection for at least these reasons. Dependent claim 19 which depends from independent claim 18 is allowable for at least the same reasons as independent claim 18.

Independent Claim 20 and Dependent Claims 21-23

Claim 20 is rejected under 35 USC §103(a) as being unpatentable over Willenegger in view of Strawczynski in further view of Frodigh.

Applicant respectfully submits that nothing in the cited references makes at least "determining a variable forward error correcting (FEC) code that provides a desired degree of robustness corresponding to the service and a possible loss of data packets when the wireless

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terminal handovers from the first base station to the second base station, wherein the first base station and the second base station transmit bursts of data packets" obvious. The cited references, when discussing FEC codes at all, merely refer to use of predetermined FEC codes. As clearly stated in the language cited above from claim 20, the FEC code is determined by the processor in the claim.

Additionally, Applicant submits that there is no motivation to combine Willenegger with Strawczynski, and Frodigh. The Office Action points to nothing in either Willenegger, Strawczynski, or Frodigh that provides the motivation to combine the references and merely provides the unsupported statements that "it would have been obvious to ... incorporate FEC coding within handover procedures to provide error-free communication," "it would have been obvious ... to apply the FEC code to all packets to check for errors in all packets within the communication process," and "[i]t would have been obvious ... to incorporate Frodigh's disclosure to provide a more desired degree of robustness to accommodate the increase number of users by decreasing interference." Therefore, Applicants assert that there is no motivation to combine Willenegger, Strawczynski and Campanella without using impermissible hindsight. Dependent claims 21-23, which each depend from independent claim 20, are allowable for at least this reason as well.

Furthermore, Applicant submits that, even if there were proper motivation to combine the references, the combination would not result in the invention claimed in claims 20-23. Strawczynski is directed to "methods and apparatus that optimize uplink backhaul bandwidth and processor usage during handoffs." (column 2, lines 26-27; emphasis added). In contrast, claims 20-23 disclose a service source sending information via multiple base stations to a wireless terminal.

Independent Claim 24

Claim 24 is rejected under 35 USC §103(a) as being unpatentable over Strawczynski in view of Schuster.

Applicant has amended claim 24 to clarify that the missing data packet identified in step (e) is what is being calculated in step (f). Applicant submits that claim 24 is not rendered

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obvious by Strawczynski in view of Schuster because neither reference discloses at least the "calculating the first data packet from the second burst of data packets in accordance with a forward error correcting (FEC) code" feature of claim 24. In column 9, lines 19-22, Strawczynski merely discusses a soft output decoder. Strawczynski does not disclose calculating a complete packet. Furthermore, at column 9, line 61 through column 10, line 5, Schuster discloses the data flow in the encoder before the transmission of the data packet and does not disclose handling the data received after a handover. In particular, nothing in Schuster discloses at least the feature of "inserting a null symbol to signify an erasure with the second burst" of claim 24.

The Office Action states that Strawczynski discloses the claimed feature of "(d) determining packet numbers that are associated with received packets of the second burst, wherein the packet numbers correspond to a transmitted packet ordering." Applicant respectfully disagrees, as none of the portions of Strawczynski cited by the Office Action (column 1, lines 57-60; column 2, lines 6-8; column 3, lines 23, 33-35; column 14, lines 19-64; column 15, lines 48 – column 16, line 49; column 17, lines 14-40; column 6, lines 47-65) disclose this feature. Therefore, for at least this reason independent claim 24 is in condition for allowance.

Moreover, Applicant submits that there is no motivation to combine Schuster with Strawczynski. Schuster discloses communication of substantially real time media signals over the Internet using an error correction scheme. However, claim 24 of the present application is directed to a method for processing data sent from multiple base stations to a wireless terminal, where packet numbers of data packets received correspond to a transmitted packet ordering. Applicant respectfully asserts that no portion of Strawczynski, alone, or in combination with Schuster, teaches this feature of claim 24. Additionally, Applicant respectfully submits that a *prima facie* case of obviousness to combine Strawczynski with Schuster has not been made. No portion of Strawczynski or Schuster is pointed to as providing motivation to combine one reference with the other. The Office Action merely states that "it would have been obvious ... to substitute and X symbol with a null symbol with both still denoting an incorrect data needing to be corrected to provide error-free communication." This clearly fails to provide the necessary motivation to combine the references without using impermissible hindsight. Applicant respectfully requests withdrawal of the rejection for at least these reasons.

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Applicant respectfully submits that the instant application is in condition for allowance. Should the Examiner believe that a conversation with Applicant's representative would be useful in the prosecution of this case, the Examiner is invited and encouraged to call Applicant's representative.

Respectfully submitted,

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By:



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